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Jim Jenson, Montana Environmental Information Center  
PO Box 1184, Helena, MT 59624

Janet Ellis, Montana Audubon Council, PO Box 595, Helena, MT 59624  
George Ochenski, Government Affairs & Consulting, PO Box 689,  
Helena, MT 59624

Frank M. & Shirley Vannoy, HC Box 435, Greenough, MT 59836

Ladies and Gentlemen:

An Environmental Assessment (EA) has been prepared for the proposed Blanchard Creek Water Leasing project. Water leasing is authorized by Montana's water leasing statute (85-2-436, MCA) which was enacted by the 1989 Montana Legislature as HB 707.

A water lease on Blanchard creek would improve instream flows for the benefit of the resident trout fishery and also enable this small Blackfoot River tributary to be available for migratory spawning use by trout from the Blackfoot River. The Blackfoot River is a recruitment-limited stream which can benefit from increased natural reproduction of rainbow, cutthroat and brown trout. Bull trout, a "Species of Special Concern" could also benefit from improved flows.

An EA checklist is included with this document. Certain items on the checklist are more fully explained, as required, in the document.

This document is available for review at all Department Regional Offices, Helena Headquarters, State Library and the Environmental Quality Council. Any questions or comments should be directed to the undersigned by November 30, 1993.

*Liter E. Spence*  
Liter E. Spence  
Water Resources Supervisor  
Fisheries Division  
(406) 444-3888

Attachments

FILED



Montana Department of Fish, Wildlife & Parks  
Fisheries Division  
Environmental Assessment

Blanchard Creek Water Leasing Project

General Purpose:

Montana's water leasing statute (85-2-436 MCA) was enacted by the 1989 Legislature as HB 707. The issue arose primarily as a result of the 1988 drought's impact on stream fisheries. The purpose of the legislation is to study the feasibility of leasing existing water rights to enhance stream flows for fisheries. It is a pilot program that terminates in 1999 and allows the Department of Fish, Wildlife and Parks to lease water rights from willing individuals who have traditionally used the water for diversionary consumptive purposes. Blanchard Creek has been selected as a stream where improved stream flows would improve the stream's resident fishery as well as the fishery in the Big Blackfoot River.

I. Location of the Project:

Blanchard Creek is a small stream that drains a southern extension of the Swam Mountain range and flows 13 miles south and east through low rolling morainal foothills. It joins the Clearwater River (a principal tributary to the Big Blackfoot River) at river mile 2.9, approximately 13 miles west of Ovando, Montana (see location map attached).

II. Need for the Project:

Blanchard Creek feeds a section of the Blackfoot River that is dominated by rainbow trout. The bulk of rainbow trout reproduction for this river section occurs in lower reaches of south flowing tributaries like Blanchard Creek. Most of these south flowing tributaries also support spawning runs of cutthroat trout, bull trout and brown trout.

Blanchard Creek itself has stream reaches dominated by rainbow trout and cutthroat trout. Transition between the two species occurs in a high gradient stream section between stream mile 2 and 3. Blanchard Creek also supports low numbers of brown trout and brook trout.

Two irrigation diversions presently withdraw water from lower Blanchard Creek. Stream discharge measurements taken above the upstream diversion (mile 1.1) show a late summer base flow of about 2.5 cfs. Blanchard Creek lost 60% of this flow (1.5 cfs) to the upstream diversion and possibly to bank seepage between the two diversion sites. The remaining flow was removed at the lower diversion, leaving dry the lower 200 yards of channel during this



period. If flows were left in Blanchard Creek, the stream could remain perennial except during extreme drought.

Blanchard Creek supports exceptionally high rainbow trout densities above the dewatered section. Of 27 tributaries surveyed in the Blackfoot River basin, Blanchard Creek supports the highest juvenile trout densities found in any of the streams. A lower stream section (mile 0.2) above the downstream diversion supported only 10% of the upstream numbers of fish. These reduced fish densities were attributed to (1) loss of habitat, via irrigation withdrawals; (2) fish losses to irrigation ditches; and (3) passage barriers formed by the two diversion structures. Although not well documented, Blanchard Creek may also provide spawning areas for Blackfoot River fish. With improved fish passage and better streamflows, Blanchard Creek could provide significant recruitment of rainbow and cutthroat trout to a recruitment-limited section of the Blackfoot River. Fall spawning trout (brown trout & bull trout) could also benefit.

### III. Scope of the Project

Walter and Clara Vannoy own the two water rights used at the two lower most diversions. Frank and Shirley Vannoy lease these rights for irrigation. These water rights are being investigated for leasing on Blanchard Creek. The Vannoy's hold two of the three irrigation rights on the creek. The senior right is held by another user who diverts from the mid section of Blanchard Creek at about stream mile 6-7. Both of the Vannoy rights are used for irrigation. Water is diverted at two sites located at stream miles 0.1 and 1.1. One right is for 45.6 cfs with a priority date of May 11, 1913 (76F-W-131092). The other right is for 22.6 cfs with a priority date of April 15, 1960 (76F-W-131091). The intent of leasing on Blanchard Creek is to maintain a continuous instream flow passed the two active lower most diversions where summer dewatering commonly occurs.

DFWP has entered into an agreement with the Vannoy's to lease all or part of water right #76F-W-131092 for instream flow purposes for a period of five years with an option to renew for an additional five years. Also, their use of water right 76F-W-131091 will not interfere with the lease of water right 76F-W-131092 when the flow of Blanchard Creek is 3 cfs or less at the lower most diversion point.

DFWP will also design and install two new diversion structures at the existing diversion points to allow fish passage up and down Blanchard Creek and to minimize fish loss to the irrigation canals. DFWP will also install a flow measuring device at the lowermost diversion point to monitor stream flows under the terms of the lease.



Although DFWP and the Vannoys have reached an agreement on this water lease, the lease cannot be implemented until a Change in Appropriation Water Right application is approved by DNRC. Any water users who feel they would be affected by this water lease have an opportunity to object to this change application. The lease can not be implemented until all objections have been resolved if, in fact, objections are received. The five year lease period will begin on the date the Change of Use Application is approved by DNRC.

The agreement provides that at least 3 cfs will be provided at the lower most diversion point during the irrigation season.

#### IV. Environmental Impact Checklist

See the attached checklist.

#### V. Explanation of Minor Impacts to the Physical Environment

##### 1) Terrestrial and Aquatic Life and Habitat

There will no adverse impacts to fish and wildlife from the proposed water lease. By improving flow of the stream during the traditionally dewatered period of the irrigation season, fisheries and, to some extent wildlife, habitat will be improved. There will be no introduction of new species into the stream due to the leasing project. However, there should be an improved abundance of game fish species once the lease has been implemented for a few years. Former barriers to fish migration will be removed, allowing spawning migrations to occur and better distribution of resident fish species. Bull trout occur in the Blackfoot drainage in relatively low numbers. Water leasing in Blanchard Creek may allow improvement in the ability of these species to utilize Blanchard Creek as a spawning environment and improve the overall populations in the Blackfoot Basin.

##### 2) Water Quality, Quantity and Distribution

Water leasing will not result in any discharge to surface waters or any alterations of surface water quality. No changes in drainage patterns or the rate and amount of surface runoff due to natural causes will occur. However, there will be changes in the amount of surface water in the stream between the uppermost and lowermost diversion points. The amount of surface water will be improved by a minimum of 3 cfs during the irrigation season during most years. The quality of this water will remain the same as in the past. Because the water quality above the uppermost diversion point has resulted in high numbers of fish in that section, it is believed the water quality in the dewatered section will provide a similar response to those fish populations. Because a smaller amount of Blanchard Creek water will be diverted for





irrigation, there could be a change in the return flow quantity or pattern. It is unknown what this change would be and it would not be possible to determine without a detailed study of the stream system. However, affects will probably be minor if any occur at all.

A temporary or slight degradation of water quality may occur as a result of constructing the new diversion structures. Any construction that might contribute sediment to the surface waters will require DFWP to secure a water quality "3A" exemption from the Montana Department of Health and Environmental Sciences. Also, a "310 permit" will be required from the Missoula County Conservation District before construction can proceed on the diversion structures to ensure minimal harm to the streambed and banks.

4) Vegetation cover, quantity and quality

Existing vegetation along the dewatered portion of the stream will not be adversely affected by the water leasing project. On the contrary, the stream riparian area may benefit because some additional vegetative growth may occur because the stream will contain more water during the irrigation season in reaches formerly dewatered or dry.

5) Aesthetics

Since a dry stream bed is generally considered to be less aesthetic than a stream containing flowing water, water leasing should improve the aesthetics of the lower end of Blanchard Creek. This portion of the stream is visible to travelers utilizing Highway 200 and the additional flowing water in the stream during the irrigation season will be more aesthetically pleasing to travelers viewing the stream.

7. Unique, endangered, fragile or limited environmental resources

The bull trout is a "Species of Special Concern" in Montana and has recently been petitioned to be listed as a federal "Threatened and Endangered Species." There are limited bull trout populations in the Blackfoot River basin. There are local accounts of bull trout staging at the mouth of Blanchard Creek. However, there is no conclusive data to demonstrate this. Providing additional water in lower Blanchard Creek through leasing may provide the opportunity for bull trout to utilize the system for spawning. However, it is unknown at this time whether or not that will occur.



#### 8) Demands on environmental resources

The intent of the water leasing program is to improve flows in streams traditionally dewatered for other uses. This project should improve the flows in the lower reach of Blanchard Creek which will benefit the resident fisheries in the stream as well as provide opportunities for spawning by fish migrating from the Blackfoot River itself. In the long term, it may provide some additional fishing opportunities on Blanchard Creek due to an increase in numbers of resident trout.

### VI. Explanation of minor impacts to the human environment

#### 4) Agricultural or industrial production

Under the lease agreement, the annual payment to the lessor will be the dollar value of the difference for that year in the maximum number of cow/calf pairs the lessor could have run on the property with full use of water for irrigation and the actual number of cow/calf pairs that were able to be run at the level of irrigation due to the lease of water. Thus in years of higher runoff, the decrease in production will be less than in years when stream flows are low and a greater percent of the irrigation water must remain in the stream, thus reducing the number of cow/calf pairs that can be run on the irrigated land. The lease agreement, however, compensates the landowner for this reduction in production.

### VII. Discussion and evaluation of reasonable alternatives

#### 1) The "no action" alternative.

If water is not leased on Blanchard Creek, the following are likely to occur:

- The reach of Blanchard Creek that leasing will benefit will continue to be dewatered,
- The resident fishery in the dewatered reach will continue to be at only 10% of its potential,
- Fish loss in the irrigation ditches will continue,
- The opportunity to improve the spawning potential of rainbow, cutthroat and bull trout from the Blackfoot River will not occur,
- The ability of Blanchard Creek to provide greater numbers of young fish to the "recruitment limited" Blackfoot River will not occur.

#### 2) The Proposed Alternative

Water leasing in Blanchard Creek is an effort to improve stream flows in a stream which has traditionally been severely dewatered by diversion of water for agricultural use. A



proposed lease agreement will provide that:

- A minimum of 3 cfs will be maintained in the dewatered stream reach during the irrigation season,
- Fish passage will be improved by installation of new "fish friendly" diversion structures which will allow both resident and migratory trout access to more of the stream.

3) Alternatives considered but not recommended

Other means for increasing instream flows in Blanchard Creek are not feasible in the near term. At this time, water leasing is the most viable option for the following reasons:

- There are no existing storage projects on Blanchard Creek and, to our knowledge, none are planned for the immediate future,
- Montana law prevents the purchase of water rights for instream flows,
- There are no transbasin diversions planned which would allow flow augmentation in Blanchard Creek,
- To our knowledge, there are no individual or group water conservation projects planned in the near term which would create additional water that might remain in, or be leased for, instream flows in Blanchard Creek.

VIII. Environmental Assessment Conclusion

1. Is an EIS required?

No. This review has clearly demonstrated impacts associated with this project are not significant. The net result of the proposed work is a positive improvement to the human and physical environment.

2. Public comment

This is not a significant action. Therefore, this EA was not advertised for public comment. However, Section 85-2-436 MCA requires Board of Natural Resources and Conservation approval of any streams studied for water leasing. This approval was received at a scheduled BNRC meeting on September 25, 1992. The Montana Fish, Wildlife and Parks Commission gave approval at their June 1992 meeting. Both meetings are open to the public. No opposition was voiced at either meeting.

3. Public Notice

Before this water lease can be implemented, it must be approved by the Department of Natural Resources and Conservation (DNRC). DFWP will submit to DNRC an Application to Change Appropriation Water Right which will be publicly noticed in local newspapers. Any objections to the lease must be resolved before the application is approved to protect the existing water rights of persons who might be adversely affected by the lease.



4. Name, title, address & phone number of person responsible  
for preparing the EA

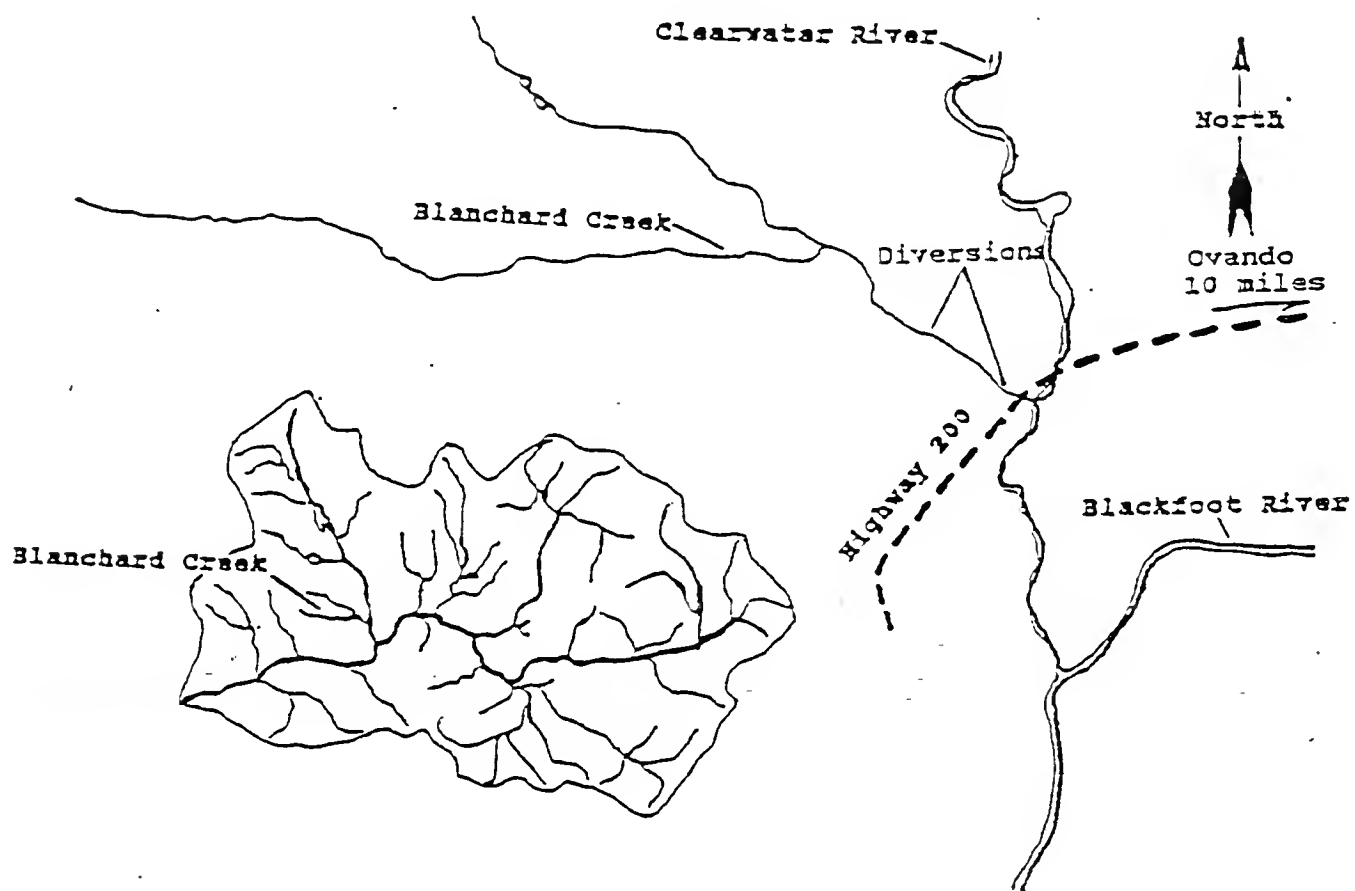
Liter Spence  
Water Resource Supervisor  
Fisheries Division  
Department of Fish, Wildlife & Parks  
1420 E 6th Ave  
PO Box 200701  
Helena MT 59620-0701  
(406) 444-2449

drg  
Attachments - 3





# Location Map for Blanchard Creek the Blackfoot Basin





**DEPARTMENT OF FISH, WILDLIFE AND PARKS**  
1420 E 6th Ave, PO Box 200701 Helena, MT 59620-0701  
(406) 444-2535

**ENVIRONMENTAL ASSESSMENT**

Project Title Blanchard Creek Water Lease

Division/Bureau Fisheries

Program \_\_\_\_\_

Description of Project DFWP proposes to lease all or part of an existing irrigation water right to enhance instream flows in Blanchard Creek, a tributary to the Clearwater River in Missoula County. Leasing will improve resident fish populations and allow opportunity for migratory spawning from the Blackfoot River.

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**POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT**

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Terrestrial & aquatic life and habitats			X			X
2. Water quality, quantity & distribution			X			X
3. Geology & soil quality, stability & moisture				X		
4. Vegetation cover, quantity & quality			X			X
5. Aesthetics			X			X
6. Air quality				X		
7. Unique, endangered, fragile, or limited environmental resources			X			
8. Demands on environmental resources of land, water, air & energy			X			X
9. Historical & archaeological sites				X		See SHPO ltr attached



# POTENTIAL IMPACTS ON HUMAN ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Social structures & mores				X		
2. Cultural uniqueness & diversity				X		
3. Local & state tax base & tax revenue				X		
4. Agricultural or industrial production			X			
5. Human health				X		
6. Quantity & distribution of community & personal income				X		
7. Access to & quality of recreational and wilderness activities				X		
8. Quantity & distribution of employment				X		
9. Distribution & density of population & housing				X		
10. Demands for government services				X		
11. Industrial & commercial activity				X		
12. Demands for energy				X		
13. Locally adopted environmental plans & goals				X		
14. Transportation networks & traffic flows				X		

Other groups or agencies contacted or which may have overlapping jurisdiction None

Individuals or groups contributing to this EA State Historic Preservation Office

Recommendation concerning preparation of EIS EIS not required.

EA prepared by : Liter Spence

Date: October 29, 1993





# State Historic Preservation Office

Montana Historical Society

1410 8th Avenue • PO Box 201202 • Helena, MT 59620-1202 • (406) 444-7715

October 25, 1993

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Liter Spence  
MDFW&P  
1420 E 6th Ave.  
POB 200701  
Helena, MT 59620

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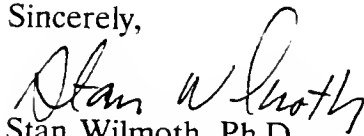
Re: Blanchard Creek Diversion

Dear <sup>Mr.</sup>~~Ms.~~ Spence:

There are a number of recorded prehistoric sites within the vicinity of the above referenced project. However, as we understand the proposal, the scope of work is confined to replacement of existing structures in the waterway. We agree that the undertaking has little likelihood of affecting resources on or eligible for the National Register of Historic Places.

Thank you for consulting with us.

Sincerely,

  
Stan Wilmoth, Ph.D.  
Archaeologist

File: MDFW&P/1993

